

Tidal Lagoon Swansea Bay

Noise Monitoring and Control Scheme

DCO Requirement 18

Works 7a

May 2020

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1 Introduction

1.1 The Development

- 1.1.1 Tidal Lagoon Swansea Bay (TLSB) will be the world's first purpose built tidal energy lagoon. The generating station will have an installed capacity of 320 megawatts (MW) and will enclose part of Swansea Bay, from the eastern side of the River Tawe to the eastern edge of the new Swansea University Bay Campus. In total the seawall will form an approximately 9.5km-long, U-shape which will encompass approximately 11.5km² of the seabed, foreshore and intertidal area of Swansea Bay.
- 1.1.2 TLSB made an application to the Planning Inspectorate on 7 February 2014 for a Development Consent Order (DCO) for a tidal lagoon (the TLSB Project) in Swansea Bay, South Wales. Examination of the application closed on 10 December 2014 and development consent was granted by the Secretary of State (SoS) on 9 June 2015.

1.2 DCO Requirement

- 1.2.1 The development of a Noise Monitoring and Control Scheme for the construction phase is a Requirement of the DCO, Requirement 18, and as such has been prepared by TLSB for approval by the relevant planning authorities in accordance with the DCO.
- 1.2.2 DCO Requirement 18 - Monitoring of noise during construction
- 18 - (1) No part of the authorised development is to commence until a written scheme providing for the monitoring of noise generated during the construction of the authorised development has been submitted to and approved by the relevant planning authorities.*
- (2) The scheme must specify the locations at which noise will be monitored, the method of noise measurement (which shall accord with BS 5228 or, an equivalent successor standard or other agreed noise measurement methodology appropriate to the circumstances) and the frequency of submission of data to the relevant planning authorities.*
- (3) The authorised development must be carried out in accordance with the approved scheme.*
- 1.2.3 This Noise Monitoring and Control Scheme provides details with regard to DCO Requirement 18 in relation to works 7a. This scheme is submitted to City and County of Swansea Council (CCSC) for approval only.
- 1.2.4 This Noise Monitoring and Control Scheme has been produced to satisfy the criteria of DCO requirement 18 in accordance with the Construction Phasing Scheme (DCO Requirement 3). This document will be updated, as appropriate, at the relevant phases of construction following on from Works 7a to include details relevant to that phase of DCO Works.

1.3 Works 7a Scope

Due to the nature and scale of Works 7a with low potential noise impact, it is not proposed that noise monitoring will be required and hence a detailed Noise Monitoring and Control Scheme for works 7a will not be provided. However, this will be provided in advance of additional works, as well as time provided for the LPA to undertake 12 months of pre-construction baseline noise monitoring.

2 Noise sources

2.1 Land based activities

- 2.1.1 Works 7a comprises the construction of a permanent public access road from the existing north-eastern ABP Swansea docks entrance to the proposed western landfall which will provide visitor and leisure facilities together with access to the main turbine buildings. This access road will also act as a temporary access for delivery of materials during construction of the project.
- 2.1.2 Transportation of employees and materials – during working hours there will be site-based traffic movements as well as deliveries to site.
- 2.1.3 Earthworks and general construction activities including reversing alarms.
- 2.1.4 Carriageway surfacing
- 2.1.5 Importing and handling of aggregates/rock.
- 2.1.6 Demolition of existing buildings

3 Monitoring locations

3.1 Locations

- 3.1.1 For the commencement of Works 7a it is not proposed that noise monitoring sites are established.
- 3.1.2 Further detail with regard to noise monitoring locations for future phase of development can be found in Appendix A. These monitoring points have been chosen at strategic locations that are in close proximity to residential areas.
- 3.1.3 The locations shown are indicative and the exact locations are to be agreed in future iterations of the noise monitoring scheme (Construction Phase 2-5 as detailed in the Construction Phasing Scheme DCO Requirement 03) by The City and County of Swansea Council (CCSC).

4 Noise monitoring schedule and protocol

4.1 Noise monitoring schedule

- 4.1.1 Due to the nature and scale of Works 7a with low potential noise impact, it is not proposed that noise monitoring will be required, however a schedule will be required for additional works.
- 4.1.2 CCSC have agreed to carry out the noise monitoring for the main works of the Project (following Works 7a), including the area in the vicinity of the new Swansea University Bay Campus which is in NPTCBC.
- 4.1.3 Communication between the relevant authorities is discussed later in this document.
- 4.1.4 CCSC has monitored a number of construction projects in recent times, and as a result, there is a large database of information from previous monitoring exercises that can be adopted for this Project. Therefore, further to consultation with the Environmental Department of CCSC, it has been agreed that a one week survey will be carried out prior to commencement. This pre-commencement survey will be carried out in nine locations shown in Appendix A. Once this information has been gathered, CCSC intends to have a flexible and reactive approach and will conduct noise monitoring surveys as required during the construction Works 7a phase. As such the frequency of data submissions will be determined in an adaptive approach.

5 Noise monitoring equipment

5.1.1 B&K 2250

- 5.1.2 This monitor is for general use class 1 sound measurements in accordance with BS 5228. It can be used for occupational and environmental assessments as well as logging information, which makes it well suited for the task. During any survey, the B&K 2250 monitor will be positioned (with external microphone) on a suitable site. See Appendix A for locations.

6 Noise monitoring limits

- 6.1.1 It is not intended to use noise trigger levels on the 7a works. It is proposed that CCSC would rather deal with any potential complaint on its merit, taking into account any previously gathered baseline measurements taken by CCSC in that area and BS5228.

7 Reporting

- 7.1.1 It is essential that open communication channels are established prior to, and during the construction phase. As members of the public are generally more inclined to contact the Environmental Department of CCSC/NPTCBC rather than any other department, it is intended that lines of communications are agreed between the Environmental Department of CCSC, NPTCBC, Swansea Bay Port Health Authority and the nominated Compliance Officer within TLSB.
- 7.1.2 Though for 7a works no nuisance complaints are expected, a shared schedule of potential complaints will be produced, ensuring that no complaints go unanswered. The TLP Environmental Liaison Officer (ELO) and the nominated LPA points of contact will be agreed prior to the commencement of construction.
- 7.1.3 On completion of the pre-construction noise survey a copy of the results will be issued to TLP.

8 Noise monitoring exceedance procedures

- 8.1. This section details the procedure that will be followed should a noise (nuisance) complaint be received by the LPA or TLP.
- 8.2 In the event that there should be a nuisance complaint, the following procedures will be followed:
- The body that receives the complaint uploads details onto the shared schedule;
 - TLSB to contact and investigate the contractor/contractors working in the area viewed to be the location from where the issue arose and the activities being undertaken at the time of the nuisance being recorded;
 - The investigation should establish the root cause of the nuisance;
 - Review work plan and method with contractor and implement changes to procedures if necessary;
 - Report back to LPA for confirmation of actions carried out on site to reduce potential for further nuisance;
 - Report findings and action plan taken forward during further works; and
 - Close out the reported nuisance complaint on the shared schedule.

Appendix A - Noise Monitoring Station Locations

Appendix A



TLSB Noise & Dust Sites

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Pollution Control Division
Place Department
City & County of Swansea

